UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,352	07/17/2003	Rani Yadav-Ranjan	361916-991110	9049

26379   7590   02/18/2010
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EXAMINER
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ART UNIT	PAPER NUMBER
3689	

NOTIFICATION DATE	DELIVERY MODE
02/18/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PatentDocketingUS-PaloAlto@dlapiper.com

	Application No.	Applicant(s)
Office Action Summary	10/623,352	YADAV-RANJAN, RANI
	Examiner	Art Unit	
	FONYA LONG	3689	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>28 January 2010</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-23</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This communication is a Non-Final Office Action rejection on the merits in response to communication received on January 28, 2010. Claims 1 and 11 have been amended. Claims 1-23 are currently pending and have been addressed below.

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 28, 2010 has been entered.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per Claims 1, 2, 11, and 12, Claims 1 and 11 recite the formula for generating a contractor risk assessment score to be calculated by combining the

weighted average of scores of the historical contractor variables. However, claims 2 and

12 discloses the CRAS score being calculated by dividing the assigned score on

historical contractor variable by the maximum score on historical contractor variable

and multiplying by 100. The two formulas contradict themselves. It is unclear what

formula is actually being claimed. Claims 1 and 11 describes a formula wherein the

weight average (which is defined as an average in which each quantity to be averaged

is assigned a weight. These weightings determine the relative importance of each

quantity on the average. Weightings are the equivalent of having that many like items

with the same value involved in the average; by Dictionary.com, "weighted average," in

Investopedia.com. Source location: Investopedia Inc.

http://dictionary.reference.com/browse/weighted average. Available:

http://dictionary.reference.com. Accessed: February 10, 2010.) of all the historical

contractor variables are combined. Claims 2 and 12 disclose calculating a cumulative

ratio as stated on Page 14 of Applicant's written description. A ratio is defined as a

relationship between two quantities, normally expressed as the quotient of one divided

by the other: *The ratio of 7 to 4 is written 7:4 or 7/4;* by Dictionary.com, "ratio," in *The*

American Heritage® Dictionary of the English Language, Fourth Edition. Source

location: Houghton Mifflin Company, 2004. http://dictionary.reference.com/browse/ratio.

Available: http://dictionary.reference.com. Accessed: February 10, 2010. Claims 2 and

12 recites $\varepsilon(Ai)/ \varepsilon(Mi)$ being a cumulative ration which is then multiplied by 100.

As per Claims 3-10 and 13-23, the claims are dependent from claims 1, 2, 11,

and 12, and therefore contain the same deficiencies as stated above.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by

Flynn (WO 02/23443).

        As per Claims 1 and 11, Flynn discloses a method and system for providing a

contractor risk assessment score (CRAS) (Pages 13-16, discloses raw scores for

various risk assessments (character, financial, property, legal, and project)), comprising:

a memory for storing data (Page 9, Para. 1, discloses a computer having storage

comprising hard disk drives or other memory storage devices); a computer coupled to

said memory (Page 9, Para. 1, discloses a computer having storage comprising hard

disk drives or other memory storage devices) and programs in execution by said

computer (Page 9, Para. 1, discloses program modules being integrated and interacting

with each other via the computer), said program extracts data from one or more external

database (Page 9, via the only communication with off-line storage is with the process

server which will transmit all data to and from historical data file daily at an undisclosed

random time) and collects historical contractor variables from the extracted external

database data (Page 12-14, discloses collecting historical contractor information such

as past financial data, data concerning past customer's character, credit and mortgage

histories, and judgments (i.e. one or more contractor engagement variables and one or

more contractor performance variables) in order to perform a risk assessment for a

contractor to acquire trade loan) and comprises a formula that generates contractor risk

assessment score calculated by combining the weighted average of scores of the

historical contractor variables wherein the contractor risk assessment score is predictive

of whether a contractor is able to complete a construction job on time and on budget

(Page 16, Para. 1, discloses the adjusted raw scores being totaled (i.e. combining

scores) and compared to the lender's underwriting standards to determine whether the

applicant's risk is acceptable).

Examiner asserts the type of historical variables hold little patentable weight in

the method and system claim. Examiner asserts that the method of assigning a score to

historical contractor variables would be performed the same regardless of the type of

variable.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 2-4 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Flynn (WO 02/23443) in view of Connor et al. (7,359,865).

        As per Claims 2 and 12, Flynn discloses a contractor risk assessment score

wherein the scores are combined (Pages 13-16, discloses totaling the raw scores for

each risk assessment used for determining whether to provide a trade loan to a

contractor).

        However, Flynn fails to explicitly disclose (CRAS) equaling [ε(Ai) / ε(Mi) * 100].

        Connor et al. discloses a method for generating a risk assessment with the

concept of (CRAS) equaling [ε(Ai) / ε(Mi) * 100] (Fig. 4, discloses calculating the actual

score for risk factors (Ai) (via 44a) and calculating the maximum score for risk factors

(Mi) (via 44b), wherein the actual score is divided by the maximum score and multiplied

by 100 to obtain a percentage risk (CRAS) (via 44c)).

        Therefore, from the teaching of Connor et al., it would have been obvious to one

of ordinary skill in the art at the time the invention was made to modify the method and

apparatus for producing reduced risk loans using assessment techniques to include

(CRAS) equaling [ε(Ai) / ε(Mi) * 100] as taught by Connor et al. in order to aid in

determining whether to provide a loan based on the risk assessment.

        As per Claims 3 and 13, Flynn discloses the contractor is a construction

contractor (Page 8, Para. 1, discloses reducing the risk in loans to contractors for

construction projects).

        As per Claims 4 and 14, Flynn discloses a formula that determines a sum of

assigned scores on said historical contractor variables (Page 16, Para. 1, discloses

providing a total of all the adjusted risk assessment raw scores).

8.   Claims 5, 6, 8, 15, 16, and 18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Flynn (WO 02/23443) in view of Connor et al. (7,359,865)), as

applied to Claims 4 and 14 above, and in further view of Chandak et al. (US

2003/0105689).

As per Claims 5 and 15, the Flynn and Connor et al. combination discloses the

claimed invention as applied to Claims 4 and 14, above. However, the combination fails

to explicitly disclose the historical contractor variables comprising a payment history

value and a credit history value.

Chandak et al. discloses a method and system for determining whether to issue

a reward incentive credit card to a customer based on a risk value associated with the

customer with the concept of historical variables comprising a payment history value

based on payments by the contractor and a credit history value of the contractor ([0027]

discloses determining a customer's financial risk value based on past payment history

data and credit history information).

Therefore, from the teaching of Chandak et al., it would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify the Flynn

and Connor et al. combination to include historical variables comprising a payment

history value and a credit history value as taught by Chandak et al. in order to aid in

predicting a contractor's behavior based on past occurrences.

As per Claims 6 and 16, the Flynn and Connor et al. combination discloses the

claimed invention as applied to Claims 5 and 15, above. However, the combination fails

to explicitly disclose variables comprising a value for an amount owed in debt.

Chandak et al. discloses a method and system for determining whether to issue a reward incentive credit card to a customer based on a risk value associated with the customer with the concept of the historical contractor variables further comprise a value for an amount owed in debt by the contractor ([0027] discloses determining a customer's financial risk value based on the customer's debts).

Therefore, from the teaching of Chandak et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Flynn and Connor et al. combination to include variables comprising a value for an amount owed in debt as taught by Chandak et al. in order to aid in determining a contractor's ability to perform according to the loan requirements, if provided a loan.

As per Claims 8 and 18, Flynn discloses the historical contractor variables comprising at least one predefined criterion selected from the group consisting of: length-of-license, Cumulative-total-of-engagements, number-of-Notice-of-completions, Number-of-terminations, Current-engagements, Insurance-held divided by Total-value-of-engagement, Company-structure, number-of-employees, years-in-trade, number-of-liens, Number-of-banks-used, Terminations divided by Years-in-trade, Terminations divided by Total-Engagements, Delays divided by Total-Engagements, Number-of-Tax-Liens, Age-of-Contractor, License-Type, License-Status, Repeat Business-with-Bank, Average-size-of-Engagement, Judgments, and Judgments-satisfied (Page 14, Para. 1, discloses analyzing judgments and liens when conducting a risk assessment).

9.   Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (WO 02/23443) in view of Connor et al. (7,359,865) and Chandak et al. (US

2003/0105689), as applied to Claims 5 and 15 above, and in further view of Chen (US 2003/0225651).

The Flynn, Connor et al., and Chandak et al. combination discloses the claimed invention. However, the combination fails to explicitly disclose the historical contractor variables comprising at least a Risk Assessment metric or a length of time since a transmitted alert.

Chen discloses a method for generating fulfillment value at risk scores and assessing the stability of the fulfillment value at risk scores with the concept of the variables comprising at least one predefined criterion selected from the group consisting of: a Risk Assessment metric having changed by at least a predetermined amount and a length of time since a transmitted alert ([0013] discloses data being aggregated over predetermined periods of time (e.g., daily, weekly, monthly) by item to create location value scores to generate risk scores that provides a measure of risk assessment).

Therefore, from the teaching of Chen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Flynn, Connor et al., and Chandak et al. combination to include variables comprising at least a Risk Assessment metric or a length of time since a transmitted alert as taught by Chen in order to provide a standardized period of time to collect a contractor's historical data when conducting a risk assessment.

10.   Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (WO 02/23443) in view of Lewis (6,513,019).

Flynn discloses the claimed invention as applied to Claims 1 and 11. However, Flynn fails to explicitly disclose a score history report.

Lewis discloses a system that enables financial institutions to rationalize risk in a cost-efficient manner with the concept of a score history report generated on a unique desired variable such as months (Col. 21, Lines 63-67; Col. 22, Lines 1-22, discloses enabling a user to enter historical reports as of a specific data and time or across a historical period (i.e. daily, weekly, monthly, quarterly, annually)).

Therefore, from the teaching of Lewis, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for producing reduced risk loans using assessment of Flynn to include a score history report as taught by Lewis in order evaluate the financial history of a contractor over a period of time.

11.   Claims 10, 20, 21, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (WO 02/23443) in view of Zizzamia et al. (US 2004/0054553).

As per Claims 10 and 20, Flynn discloses the claimed invention as applied to Claims 1 and 11, above. However, Flynn fails to explicitly disclose a formula that generates a score using multivariate methods to produce a coefficient for an external historical contractor variable.

Zizzamia et al. discloses a system and method to predict future profitability and productivity of licensed professionals with the concept of a formula generating a score using multivariate methods to produce a coefficient for an external historical contractor variable and the coefficient represents the contribution the external variable to the

CRAS ([0027] discloses using multivariate methods [0081] which provides a correlation coefficient for each of the predictive external variables).

Therefore, from the teaching of Zizzamia et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for producing reduced risk loans using assessment of Flynn to include a formula that generates a score using multivariate methods to produce a coefficient for an external variable as taught by Zizzamia et al. in order to aid in predicting future behavior of the contractor.

As per Claim 21, Flynn discloses the claimed invention as applied to Claim 11, above. However, Flynn fails to explicitly disclose examining external historical contractor variables for cross-correlation against one another.

Zizzamia et al. discloses a system and method to predict future profitability and productivity of licensed professionals with the concept of examining external variables for cross-correlation against one another to validate the external variables ([0079] discloses predictor variables from the various external data sources are examined for cross-correlations).

Therefore, from the teaching of Zizzamia et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for producing reduced risk loans using assessment of Flynn to include examining external variables for cross-correlation against one another as taught by Zizzamia et al. in order to eliminate highly repetitive variables.

As per Claim 22, Flynn discloses the claimed invention as applied to Claim 21, above. However, Flynn fails to explicitly disclose associating an external historical contractor variable with an individual contractor's records.

Zizzamia et al. discloses a system and method to predict future profitability and productivity of licensed professionals with the concept of associating at least one individual external variable with an individual contractor's records based on a data key associated with at least one external data source ([0046] discloses variables from external data sources are matched to producer data to identify a relationship between the variables and insurance producer productivity).

Therefore, from the teaching of Zizzamia et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for producing reduced risk loans using assessment of Flynn to include associating an external variable with an individual contractor's records as taught by Zizzamia et al. in order to aid in developing a method that is predictive a contractor's ability to perform.

As per Claim 23, Flynn discloses the claimed invention as applied to Claim 11, above. However, Flynn fails to explicitly disclose dividing the data into a relational data set.

Zizzamia et al. discloses a system and method to predict future profitability and productivity of licensed professionals with the concept of dividing the data into a relational data set for developing the score for refining and validating the data ([0085-0089] discloses developing a testing data set that provides the relationships in the data).

Therefore, from the teaching of Zizzamia et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for producing reduced risk loans using assessment of Flynn to include dividing the data into a relational data set as taught by Zizzamia et al. in order to monitor and minimize the overstating of the relationships in the data.

Response to Arguments

12.   Applicant's arguments filed January 28, 2010 have been fully considered but they are not persuasive.

With respect to Applicant's arguments regarding the 112 2nd rejection set forth in the previous office action, Examiner respectfully disagrees. Examiner asserts claims 1 and 11 recite the formula for generating a contractor risk assessment score to be calculated by combining the weighted average of scores of the historical contractor variables. However, claims 2 and 12 discloses the CRAS score being calculated by dividing the assigned score on historical contractor variable by the maximum score on historical contractor variable and multiplying by 100. The two formulas contradict themselves. Claims 1 and 11 describes a formula wherein the weight average (which is defined as an average in which each quantity to be averaged is assigned a weight. These weightings determine the relative importance of each quantity on the average. Weightings are the equivalent of having that many like items with the same value involved in the average; by Dictionary.com, "weighted average," in *Investopedia.com*. Source location: Investopedia Inc. http://dictionary.reference.com/browse/weighted

average. Available: http://dictionary.reference.com. Accessed: February 10, 2010.) of all

the historical contractor variables are combined. Claims 2 and 12 disclose calculating a

cumulative ratio as stated on Page 14 of Applicant's written description. A ratio is

defined as a relationship between two quantities, normally expressed as the quotient of

one divided by the other: *The ratio of 7 to 4 is written 7:4 or 7/4;* by Dictionary.com,

"ratio," in *The American Heritage® Dictionary of the English Language, Fourth Edition.*

Source location: Houghton Mifflin Company, 2004.

http://dictionary.reference.com/browse/ratio. Available: http://dictionary.reference.com.

Accessed: February 10, 2010. Claims 2 and 12 recites $\varepsilon(Ai)/ \varepsilon(Mi)$ being a cumulative

ration which is then multiplied by 100.

     With regards to Applicant's arguments for Claims 1 and 11, Applicant's

arguments with respect to claims 1 and 11 have been considered but are moot in view

of the new ground(s) of rejection.

     With regards to Applicant arguments for Claims 2-4 and 12-14 in reference to the

claim limitation stating (CRAS) equaling $[\varepsilon(Ai) / \varepsilon(Mi) * 100]$, Examiner respectfully

disagrees. Examiner asserts Connor discloses (CRAS) equaling $[\varepsilon(Ai) / \varepsilon(Mi) * 100]$ via

calculating the actual score for risk factors (Ai) (via 44a) and calculating the maximum

score for risk factors (Mi) (via 44b), wherein the actual score is divided by the maximum

score and multiplied by 100 to obtain a percentage risk (CRAS) (via 44c) (Fig. 4).

     As per Claims 5-8, 10, 15-18, and 20-23, all rejections made towards the

dependent claims are maintained due to the lack of a reply by the applicant in regards

to distinctly and specifically pointing out the supposed errors in the examiner's action in

the prior office action (37 CFR 1.111). The Examiner asserts that the applicant only

argues that the dependent claims should be allowable because the independent claims

are unobvious and unpatentable over Flynn in view of Chandak, Chen, and Zizzamia.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to FONYA LONG whose telephone number is (571)270-

5096. The examiner can normally be reached on Mon-Thurs. 7:30am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should
you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a
USPTO Customer Service Representative or access to the automated information
system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. L./
Examiner, Art Unit 3689

/Janice A. Mooneyham/
Supervisory Patent Examiner, Art Unit 3689